

STATE OF IOWA
DEPARTMENT OF COMMERCE
UTILITIES BOARD

IN RE: MIDAMERICAN ENERGY COMPANY	DOCKET NO. WRU-01-55-156
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ORDER GRANTING WAIVER

(Issued January 15, 2002)

On December 17, 2001, MidAmerican Energy Company (MidAmerican) filed with the Utilities Board (Board) a request to waive a part of Board rule 199 IAC 19.5(2) that relates to pipeline safety standards. In subrule 19.5(2) the Board adopted federal safety standards for the design, construction, operation, and maintenance of gas facilities. The federal safety standards for the transportation of natural gas by pipeline are found in 49 CFR Part 192. MidAmerican is seeking waiver of the requirements of 49 CFR 192.553(2)(d) and the pressure test component of the Maximum Allowable Operating Pressure (MAOP) as provided in 49 CFR 192.619(a). The specific pressure test requirements are in 49 CFR 192.619(a)(2)(ii), which establishes requirements for the pressure testing of a steel gas pipeline operating at 100 pounds per square inch gauge (psig) or more.

MidAmerican states that the waiver concerns a 7.8 mile segment of gas distribution main that serves Sioux City, Iowa. This main forms the backbone of the distribution system that serves approximately 21,000 customers through seven

district regulator stations. MidAmerican states that the main cannot be taken out of service without interrupting natural gas supply to all or a major portion of the 21,000 customers.

MidAmerican on September 28, 2000, retired a district regulator station at Gordon Drive and Nebraska Street in Sioux City and at that time uprated the main from 55 psig to 135 psig. Prior to the uprating, MidAmerican states that it conducted a detailed investigation of the main and the main had no evidence of active corrosion and the cathodic records complied with the relevant federal standards. MidAmerican states that it could find pressure test records for only a portion of the main and historically the leak records showed two gas leaks that were repaired. Also, the flanged and welded valves on the main segment had a minimum pressure rating of 200 psig and the regulator valves and meter cocks were rated for at least 150 psig.

MidAmerican then states that it subsequently was told by Board pipeline safety staff that the procedures it took to uprate the main did not comply with the federal standards in 49 CFR Part 192. MidAmerican states that it cannot meet existing customers' gas demands by returning the pressure of the main to the previous of 55 psig and the city who owns the right of way will not let MidAmerican install a new regulator station at the former location. MidAmerican states that there are no alternatives for location of regulator stations in the area that would allow it to meet the federal safety requirements.

MidAmerican described four alternatives that it had considered and stated that it is requesting the adoption of the fourth alternative, which accepts the uprating of the line segment in four equal increments from 55 psig to 135 psig performed by MidAmerican on September 28, 2000, and commits MidAmerican to performing annual leak surveys on the line. MidAmerican asserts that this alternative is the only one that provides uninterrupted service to the 21,000 customers while the new MAOP is being established, provides protection for customers which meets or exceeds the requirements of 49 CFR Part 192 through the use of annual leak surveys, provides equal protection for customers by taking into consideration the historical performance of the facility and the addition of both the uprate and leak surveys, provides the least complex method of establishing MAOP, and provides adequate peak day gas supply to existing customers.

The Board enforces the federal safety standards under a certificate granted by the U.S. Department of Transportation, Office of Pipeline Safety (OPS), pursuant to 49 U.S.C.A. § 60105. Pursuant to 49 U.S.C.A. § 60118(d), a certificated state may grant a waiver of a federal pipeline safety regulation. However, a state waiver must be submitted to OPS for review and OPS has 60 days to stay a waiver it finds objectionable. OPS requires that the state agency give notice and opportunity for written comments and hearing before granting a waiver, unless the state agency finds that notice is impracticable, unnecessary, or not in the public interest. The Board finds that notice in this matter is impracticable and unnecessary and therefore

notice and an opportunity for filing comments and a hearing have been omitted from the review of the waiver request.

As noted by MidAmerican, in May 2001 Board staff conducted a routine safety code compliance inspection of the Sioux City area. That inspection reviewed the uprating and cited a probable violation of § 192.619(a)(2)(ii) for operating the uprated section at a higher pressure than allowed under the cited pressure test standard. In all other respects the uprating was found properly conducted.

The Board in reviewing the request for a waiver of the pressure test component of the MAOP for the pipeline in Sioux City has considered three issues. Those issues are: 1) Is there any evidence the pipeline cannot safely operate at 135 psig; 2) what is the safety impact of not pressure testing the pipeline to 202.5 psig; and 3) has OPS accepted waivers in similar cases and, if so, has OPS applied any additional conditions.

1. The issue of whether there is any evidence that the pipeline cannot operate safely at 135 psig is a question the pipeline operator must consider in the planning process for an uprating. Board staff in its inspection report concluded that MidAmerican had conducted a thorough review of the system and replaced all components that demonstrated insufficient pressure ratings. MidAmerican found no corrosion problems on the pipeline and found only two historic leaks, both at valves and both subsequently repaired. Leak surveys done as part of the uprating process found only three minor leaks at seals. An additional leak survey conducted several

weeks after the uprating found no new leaks. The Board finds that based upon the above information there is no evidence that the pipeline cannot safely operate at 135 psig.

2. The issue of the safety impact of not pressure testing an uprated pipeline resulted from the Board staff inspection that found past test records showing recent installations were tested to 225-239 psig and some older pipe was tested to 100 psig, but for most of the line there are no test records at all. Therefore, most of the line was not tested to current standards for an operating pressure of 135 psig (1.5 MAOP, or 202.5 psig in this instance) or the test pressure is unknown.

This issue of not pressure testing an uprated pipeline is currently being considered by a joint committee of the National Association of Pipeline Safety Representatives (NAPSR) and the American Gas Association. The gas industry contends that meeting the pressure test component of the current rules may be impractical or impossible in situations where increasing a pipeline's operating pressure is needed to serve demand growth but past pressure tests are insufficient to support the desired new MAOP. The difficulty is that the systems often cannot be taken out of service for testing or raised to the test pressure without affecting a significant number of customers, similar to the situation in Sioux City. The gas industry would classify pressure tests as either "strength" or "leak" tests. Strength tests would proof the integrity of the pipeline materials by subjecting them to significant stress, while in a leak test the higher pressure makes any leaks more

readily detectable so they can be found and repaired. The industry position is that the pressures in distribution tests are not high enough to significantly stress the pipe materials. In an uprating, the gas pressure is raised in increments while the system remains in service and as the pressure is raised a series of leak surveys are performed to determine if any leaks develop. The gas industry's proposal is to conduct an additional survey 10 to 30 days after the uprating raises the system pressure to its new MAOP. Small but still potentially dangerous leaks may not release enough gas to be detected at the time of the uprating, but by waiting enough gas will escape for the leak to be found.

The existing federal standards do not require that a pressure test be conducted at the time of uprating. A pressure test from the time of installation suffices, which in this instance was 1951 for parts of the pipeline in Sioux City. A new test is required at uprating only if the old test was inadequate under current standards. The gas Industry contends that the proposed additional leak survey would be of more benefit to public safety than relying on an original pressure test that may be decades old and would find leaks as effectively as a higher pressure test at the time of the uprating.

The joint committee has not yet submitted its recommendations for rule changes to OPS and some states have expressed reservations about removing the pressure test requirement. The issue though is significant since it shows that there is a body of opinion that feels an uprating conducted in the above manner provides a reasonable alternative to the pressure test requirement of the existing rules.

MidAmerican's uprating was conducted in a manner consistent with the proposed alternative method.

3. The waiver request made by MidAmerican is similar to waivers granted by the Missouri Public Service Commission (PSC) in 1998 and 2001. In Missouri, a utility wanted to increase the MAOP of three miles of pipeline from 118 to 175 psig. The line had not been previously pressure tested consistent with operating at that level. The line was the sole source of supply to Nevada, Missouri, and could not be removed from service for testing without discontinuing service to the city. The line could not be tested with gas while remaining in service because sufficient pressure could not be obtained from the upstream source. The Missouri PSC initially granted a three-year waiver to gain experience operating the pipeline at 175 psig and required annual leak surveys (instead of every five years as otherwise required). In 2001 the waiver was made permanent, with the condition that annual leak surveys continue. OPS accepted the waiver in both cases and made particular note of the annual leak survey requirement. Although there are some differences between the situation in Missouri and the current case, that the pipeline had been previously tested to 175 psig and that pressure caused a stress of only 6 percent of yield in the pipe wall, MidAmerican's proposal to conduct annual leak surveys is consistent with waiver granted by the Missouri PSC and accepted by OPS.

Based upon the discussion above, the earlier completion by MidAmerican of the uprating of the line segment in equal increments from 55 psig to 135 psig and the

commitment to conduct annual leak surveys, the Board finds the safety requirements of 49 CFR Part 192 have been substantially met. This provides the safety protection to the 21,000 customers while giving the customers continued uninterrupted service.

To waive one of its rules, the Board must find based upon clear and convincing evidence that the four criteria in 199 IAC 1.3 are met. Those criteria are: 1) that the application of the rule would pose an undue hardship, 2) that the waiver would not prejudice the substantial legal rights of any person, 3) that the provisions waived are not specifically mandated by statute or another provision of law, and 4) substantially equal protection of public health, safety, and welfare will be afforded after the waiver.

The Board finds that there is clear and convincing evidence that the application of the rule would pose an undue hardship on MidAmerican and its customers. The violation of the rule was inadvertent based on an erroneous interpretation of the federal pipeline safety standards and a return to the original operating condition is not possible. Compliance with the rule would require interruption of service to approximately 21,000 residential, commercial, hospital and industrial customers, or arrangements to maintain service on the numerous mains served by this line of questionable practicality and great expense. The Board finds that the waiver will not prejudice the substantial legal rights of any person. It would rather assure continuity of service to affected customers.

The provisions of the rule subject to the petition for waiver are not specifically mandated by statute, but are required by federal regulations. Those regulations

though provide for a waiver of the federal safety requirements by a certificated state where the state finds that the waiver is not inconsistent with pipeline safety.

49 U.S.C.A § 60118. The statute then requires that OPS be given 60 days to review the waiver before the waiver is effective. The Board finds that the waiver is not inconsistent with pipeline safety and the Board will comply with the 60-day review requirement and therefore meets this criteria.

The Board finds that substantially equal protection of public health, safety, and welfare will be afforded by other means as described in this order. The pipeline was uprated using a process that the American Gas Association is proposing as an alternative to the current requirements, similar waivers have been granted in Missouri and accepted by OPS, and MidAmerican has committed to conducting annual leak surveys for the life of the pipeline.

The Board also finds that certain conditions in addition to the annual leak survey will be placed on MidAmerican in approving this waiver. For a period of three years from the effective date of this waiver, MidAmerican shall report to the Board any leaks, failures, problems, or repairs on this pipeline, including cause, impact, and disposition, and the Board will retain the authority to rescind or modify this waiver if a history of problems attributable to the higher pressure is found.

This waiver shall not become effective until reviewed and not stayed by written objection of the federal Office of Pipeline Safety pursuant to 49 U.S.C.A. § 60118(d).

IT IS THEREFORE ORDERED:

1. The request filed by MidAmerican Energy Company on December 17, 2001, for a waiver of 199 IAC 19.5(2) and the applicable provisions of 49 CFR Part 192 is granted subject to the conditions described in this order.
2. A copy of this order will be sent to the U.S. Department of Transportation, Office of Pipeline Safety.
3. The waiver granted in this order shall become effective 65 days from the date of the order, unless the waiver is stayed by written objection from the U.S. Department of Transportation, Office of Pipeline Safety.

UTILITIES BOARD

/s/ Diane Munns

/s/ Mark O. Lambert

ATTEST:

/s/ Judi K. Cooper
Executive Secretary

Dated at Des Moines, Iowa, this 15th day of January, 2002.